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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------|------------------------|
| 10/717,225 | 11/19/2003 | Hiromasa Tanobe | 5259-000034 | 6024 |
| 27572 | 7590 | 07/05/2007 | | |
| HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303 | | | EXAMINER LEE, DAVID J | |
| | | | ART UNIT 2613 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/717,225 | | TANOBE ET AL. | |
| | Examiner | | Art Unit | |
| | David Lee | | 2613 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/27/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-118 is/are pending in the application.
- 4a) Of the above claim(s) 34-118 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 30-32 is/are rejected.
- 7) ☒ Claim(s) 6-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/25/07, 7/27/06, 11/19/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the elected species in the reply filed on 4/27/2007 is acknowledged. The traversal is on the grounds that the claims are more appropriately divided into three groups due to similar subject matter. This is found persuasive and therefore Applicant's election of species I (claims 1-33) will be examined as proposed by Applicant.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US Patent No. 6,643,463 B1).

Regarding claim 1, Suzuki teaches an optical communication system comprising: an NxN wavelength path establishment circuit having N input ports and N output ports, N being an integer of at least 2 (see circuit 53 of fig. 3 and col. 6, line 1), outputting light input from an input port to a different output port depending on the wavelength of the input light, and the wavelength of light output from an output port being different depending on the input port (see fig. 2); n communication nodes, n being an integer at least 2 and not greater than N, for outputting information of an input optical data signal, as is or after changing a part of the information, as an optical data signal of a predetermined wavelength (wavelengths are predetermined as shown in

fig. 2); and optical waveguides for connecting the input ports and the output ports of the NxN wavelength path establishment circuit and the communication nodes (see fig. 3: note the fibers connecting nodes to path establishment circuit 53), wherein for at least some of the n communication nodes, in order to form at least one logical-ring transmission path where an optical data signal transmitted from one communication node returns to the one communication node via other communication nodes (see fig. 3: data can be transmitted from a node and returned), a correlation of wavelengths for connecting between the input ports and the output ports of the NxN wavelength path establishment circuit, wavelengths of optical data signals output from the respective communication nodes, and connections between the input ports and the output ports of the NxN wavelength path establishment circuit, and the respective communication nodes are set (the correlation of wavelengths is set as shown in fig. 3; the input and output ports and connections are set as well).

Regarding claim 2, Suzuki teaches for at least some of the n communication nodes, in order to form at least two logical-ring transmission paths where an optical data signal transmitted from one communication node returns to the one communication node via other communication nodes (see fig. 3: data can be transmitted from a node and returned), a correlation of wavelengths for connecting between the input ports and the output ports of the NxN wavelength path establishment circuit, wavelengths of at least two optical data signals output from the respective communication nodes, and connections between the input ports and the output ports of the N.times.N wavelength path establishment circuit, and the respective communication nodes are set (the correlation of wavelengths is set as shown in fig. 3; the input and output ports and connections are set as well).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Ovadia (US Patent No. 7,181,140 B2).

Regarding claims 3 and 30, Suzuki teaches the limitations of claims 1 and 2 including a device which transfers the optical data signal so that an optical data signal loaded with information of communication nodes circulates the respective communication nodes forming the logical-ring transmission path (13 of fig. 5). Suzuki does not expressly disclose a memory for storing information of the optical data signal which has been received and a transfer device which writes the information of the optical data signal to the memory and appends information to the optical data signal which is transmitted. Ovadia teaches a communication node comprising a memory for storing information of the optical data signal which has been received and a transfer device which writes the information of the optical data signal to the memory and appends information to the optical data signal which is transmitted (col. 9, lines 17-22). It would have been obvious to a skilled artisan at the time of invention to incorporate the memory and transfer device of Ovadia in the node of Suzuki in order to provide backup capabilities.

6. Claims 4 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Ovadia and in further view of Ozveren et al. (US Pub. No. 2002/0154357 A1).

Regarding claims 4 and 31, the combined invention of Suzuki and Ovadia teaches the limitations of claims 3 and 30 but does not expressly disclose a management device which monitors and controls the condition of the respective communication nodes. Ozveren teaches an optical communication system comprising a management device which monitors and controls the condition of the respective communication nodes (Network management system of fig. 3) wherein a management signal for managing a communication node is: transferred between the management device and the communication node by an optical signal, of which wavelength is different from the wavelength of the optical data signal or the wavelengths of the optical data signal and the optical control signal (see paragraph 0035).

7. Claims 5 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. in view of Ozveren et al.

Regarding claims 5 and 32, Suzuki teaches the limitations of claims 1 and 2 but does not expressly disclose a management device which monitors and controls the condition of the respective communication nodes. Ozveren teaches an optical communication system comprising a management device which monitors and controls the condition of the respective communication nodes (Network management system of fig. 3) wherein a management signal for managing a communication node is: transferred between the management device and the communication node by an optical signal, of which wavelength is different from the wavelength

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of the optical data signal or the wavelengths of the optical data signal and the optical control signal (see paragraph 0035).

Allowable Subject Matter

8. Claim 33 is allowed.

Claims 6-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lee whose telephone number is (571) 272-2220. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to be 'DL', with a large loop at the end.

David Lee
Patent Examiner

A handwritten signature in black ink, appearing to be 'SHI K. LI', with a stylized 'S' and 'L'.

SHI K. LI
PRIMARY PATENT EXAMINER